

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants:	Roger L. Schultz, Craig Zitterich, James Masino	)	
		)	
[vrs1]		)	Group Art Unit: Unknown
Application	Not Yet Assigned	)	
No.:		)	
		)	Examiner: Unknown
Filed:		)	
		)	
For:	WIRELESS TELEMETRY SYSTEMS	)	
	AND METHODS FOR REAL TIME	)	
	TRANSMISSION OF	)	
	ELECTROMAGNETIC SIGNALS	)	
	THROUGH A LOSSY ENVIRONMENT	)	

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22202

Sir:

Applicants are submitting patents, publications and other information of which they are aware and which they believe may be material to the examination of this application. It is believed that no fee is necessary. However, the Commissioner is authorized to charge any fees, except issue fees, which may be necessary to Deposit Account No. 500449. A duplicate of this sheet is enclosed. Copies of the following documents and a Form PTO-1449 are submitted herewith.

## **A. U.S. Patent Documents**

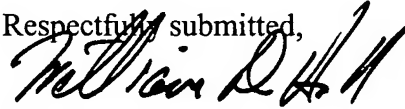
	<b><u>U.S. Patent No.</u></b>	<b><u>Patentee</u></b>	<b><u>Date</u></b>
1.	4,788,544	Howard	11-29-1988
2.	4,839,644	Safinya et al.	06-13-1989
3.	5,010,333	Gardner et al.	04-23-1991
4.	5,160,925	Dailey et al.	11-03-1992
5.	5,236,048	Skinner et al.	08-17-1993
6.	5,273,113	Schultz	12-28-1993
7.	5,490,564	Schultz et al.	02-13-1996
8.	5,732,776	Tubel et al.	03-31-1998
9.	5,838,727	Lyon et al.	11-17-1998
10.	5,941,307	Tubel	08-24-1999
11.	6,192,988 B1	Tubel	02-27-2001
12.	6,392,561 B1	Davies et al.	05-21-2002
13.	6,445,307 B1	Rassi et al.	09-03-2002
14.	6,464,011 B2	Tubel	10-15-2002
15.	6,538,576 B1	Schultz et al.	03-25-2003

## **Other References**

16. Publication entitled Effects of Dielectric Losses on the Propagation of an Electric Field in Fluid-Saturated Porous Media, Chapter 6 and General Conclusion, Chapter 7 by Gottlieb, J. et al., published in "Field Screening Europe" Kluwer Academic Publishers, pp. 137-142 (1997).
17. Publication entitled Accurate Computation of Vector Potentials in Lossy Media by Swagato Chakraborty and Vikram Jandhyala, Department of Electrical Engineering, University of Washington, published in the UWEE Technical Report Number UWEETR-2002-0011, August 2, 2002
18. Publication entitled DOE-Industry Breakthrough Turns Drilling System Into Lightning Fast Computer Network published in DOE Fossil Energy Techline, pp.1-3, September 30, 2002.
19. Congressional Notification Profile entitled Deep Trek Program Solicitation by E-Spectrum Technologies, Inc., 23<sup>rd</sup> Congressional District, pp. 1-2 (Date unknown).
20. Publication entitled Lossy Transmission Line Model of Hydrofractured Well Dynamics by Tadeusz W. Patzek, SPE, University of California at Berkeley; Asoke De, Lawrence Berkeley National Laboratory published in Society of Petroleum Engineers Number SPE 46195; pp. 1-16, May 10, 1998.

- 21 Publication entitled Wireless Data Telemetry by Douglas S. Drumheller and Steven D. Knudsen, Sandia National Laboratories published in U.S. Department of Energy Geothermal Energy Technical Site, pp. 1-5, May 12, 1998.
- 22 blication entitled Surface Area Modulation Downhole Telemetry System for Measurement While Drilling by Michael J. Taylor, Project Manager, Sandia National Laboratories, Rocky Mountain Oilfield Testing Center, pp. 1-21, March 31, 1998.
23. Publication No. US 2002/0101359A1 by Bruce S. Huckaba et al. Publication Date: Aug. 1, 2002.

Respectfully submitted,



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STATEMENT BY APPLICANT**

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Sheet

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**Complete if Known**

Application Number	Not Yet Assigned
Filing Date	
First Named Inventor	Roger L. Schultz, et al.
Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	HES 2002-IP-008558

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US- 4,788,544	11-29-1988	Howard	
	2	US- 4,839,644	06-13-1989	Safinya et al.	
	3	US- 5,010,333	04-23-1991	Gardner et al.	
	4	US- 5,160,925	11-03-1992	Dailey et al.	
	5	US- 5,236,048	08-17-1993	Skinner et al.	
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	9	US- 5,838,727	11-17-1998	Lyon et al.	
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	13	US- 6,445,307 B1	09-03-2002	Rassi et al.	
	14	US- 6,464,011 B2	10-15-2002	Tubel	
	15	US- 6,538,576 B1	03-25-2003	Schultz et al.	
		US-			
		US-			
		US-			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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First Named Inventor	Roger L. Schultz, et al.
Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	HES 2002-IP-008558

Sheet 1 of 1

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	16	Publication entitled Effects of Dielectric Losses on the Propagation of an Electric Field in Fluid-Saturated Porous Media, Chapter 6 and General Conclusion, Chapter 7 by Gottlieb, J. et al., published in "Field Screening Europe" Kluwer Academic Publishers, pp. 137-142 (1997).	
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	21	Publication entitled Wireless Data Telemetry by Douglas S. Drumheller and Steven D. Knudsen, Sandia National Laboratories published in U.S. Department of Energy Geothermal Energy Technical Site, pp. 1-5, May 12, 1998.	
	22	Publication entitled Surface Area Modulation Downhole Telemetry System for Measurement While Drilling by Michael J. Taylor, Project Manager, Sandia National Laboratories, Rocky Mountain Oilfield Testing Center, pp. 1-21, March 31, 1998.	
	23	Publication No. 2002/010359 A1 by Bruce S. Huckaba et al. Publication Date: Aug. 1, 2002	

Examiner  
SignatureDate  
Considered

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1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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